



Public Private Partnership Residential Estates: Beneficiaries' Satisfaction Assessment

Ige VO¹✉, Ohiro Iroleunuata Evelyn²

This paper assessed beneficiaries' satisfaction with sunshine Garden public private partnership residential estate in Oba-Ile area of Nigeria. The study randomly sampled 92 beneficiaries and analyzed data using relative satisfaction index and factor analysis. Drawing on evidence from the case study, the factor analyses revealed 'construction and design'; 'neighborhood and environmental facilities' as well as 'accessibility' as the major factors to take cognizance of as affecting beneficiaries' satisfaction. Additionally, the relative importance index, revealed privacy is the most essential factor that attracted beneficiaries to the Estate.

INTRODUCTION

Housing satisfaction has been perceived from different viewpoints. Mesch and Manor (1998), for instance, considered housing satisfaction as the assessment of the physical and social environment features by the occupants. Djebarni and Al-Abed (2000); Waziri, Yusof, and Salleh (2013) on the other hand, regarded housing satisfaction as the level of fulfilment experienced by an occupant in relation to the existing housing condition. Housing satisfaction as acknowledged by Amerigo and Aragones (1997) measures the gap in households' actual and desired residential environment. Therefore, where the seeming gap between the actual and the anticipated housing conditions as well as the interior and exterior environments is small and satisfactory, it suggests that occupants contented with the residential environment. On the other hand, dissatisfaction with residential environment specifies the variance in the palpable needs and the existing condition (Vera-Toscano and Ateca-Amestoy, 2008).

In view of this, housing satisfaction has been acknowledged as a key prognosticator of individual's quality of life and response to residential location related features (Sirgy and Cornwell, 2002). Measuring housing satisfaction therefore, is very significant, since understanding the factors that determine users' satisfaction levels is central to the formulation of a productive housing policy. Consistent with Jiboye (2009), assessing occupants' satisfaction of residential apartments is beyond common assumptions limited to physical and structural aptness. This is so, as Augustine (2005) stressed that housing is more than mere somewhere to live and physical dwelling unit including all the supplementary services and community facilities, which are essential for human well-being. Thus, Jiboye (2009) regarded accommodation, one of the best indicators of individual's standard of living in the society. Household's satisfaction

with the overall residential environment indicates quality of life as it conforms to their needs and aspirations. Teck-Hong (2012) avowed that this can be determined by periodic assessment of the impelling variables of housing satisfaction or dissatisfaction which varies from one place to another.

A Public-Private Partnerships (PPP) is an arrangement between a publicly funded body, like government or her agency, and a private enterprise that pull resources together to build or improve services typically provided solely for a public entity (Akitoby, Hemming and Schwartz, 2007). The disparagement however, is that the private sector is arrogated with too much control and focused more on making huge returns at the detriment of the end users satisfaction. This often compromise standard and equally negate the main purpose of such projects, particularly when it is housing which is a social and basic need. Hence, this call for regular appraisal of the Public-Private Partnership residential property projects, so as to establish satisfaction or dissatisfaction level of the occupants. This would ensure effective monitoring of development control guidelines and the extent of compliance including adjustment where necessary.

Additionally, Ramdane and Abdullah (2000) affirmed regular appraisal of Public-Private Partnership Residential housing projects as capable of keeping the private developers on track, since their principal targets is often profit maximization which at times is at the disadvantage of beneficiary's well-being. In the light of this, it is notable to appraise beneficiary's level of satisfaction in relation to the building and its infrastructure. In a bid to achieve this, the study has carefully chosen Sunshine Garden Public-Private Partnership Residential Estate in Oba-Ile, Ondo State, Nigeria as a case study estate to assess beneficiaries' satisfaction. This would in turn add to the existing body of knowledge to provide necessary information and policy guide required by developers and house providers to improve the development of housing projects.

The rest of the paper is organized as follows: Section 2 review some of the relevant literatures. Section 3 describes the study area and methodology of the study. Section 4 presents the findings and discussion of the survey data. Finally, section 5 concludes the paper.

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LITERATURE REVIEW

Earlier studies have provided basis for measuring housing satisfaction to include dwelling units, neighborhood quality, facilities, amenities and management services amongst others as provided within the building structure and its surroundings by developers and housing providers. Nevertheless, there seems to be no ostensible agreement about the direction of these factors on satisfaction which is one of the identified gaps this study anticipated to fill. Equally, in spite of the billions of dollars being spent on public private partnership residential estates, beneficiaries' satisfaction with such projects still begs empirical examination, particularly in Nigeria. A review of some of the available study around the World and in Nigeria takes account of Lu (1999) on the effects of housing, neighborhood, and household characteristics on individuals' satisfaction with both dwelling and neighborhood. Data was drawn from the American Housing Survey and ordered logit models (OLM) was adopted in analyzing the data. The results show that housing satisfaction is a complex construct, affected by a variety of environmental and socio-demographic variables.

Luis (2006) investigates the determining factor of housing satisfaction in twelve EU countries. Panel data covering from 1994-2001 was employed to control for individual heterogeneity. Separate estimates on the determinants of housing satisfaction for homeowners and for renters revealed that tenure status is critical in determining the level of housing satisfaction. Housing satisfaction also prompt housing mobility, while dissatisfied renters are more likely to move than their homeowners counterparts. Equally, Mohit, Ibrahim and Rashid (2010) considered housing satisfaction in newly designed public low-cost housing in Kuala Lumpur, Malaysia. Family size and the existence of working wife in the family were adopted as an objective measurement model of housing satisfaction. The predictor variables was established to be negatively correlated with housing satisfaction.

In like manner, Lee and Park (2010) examined the factors that affect satisfaction with housing and quality of life among Korean temporary residents in U.S. 255 Korean living in the Lansing area of Michigan, U.S was sampled and housing satisfaction was found not to be only strong predictor of quality of life but most significant facilitator of residents characteristics, housing perception and neighborhood perception. Resident's characteristics, including demographic and socioeconomic conditions, indirectly predicted quality of life in relation to perception of and satisfaction with housing. Mohit and Azim (2012) as well appraised 100 households within the public housing area of Hulhumale, Maldives so as to determine their level of satisfaction. Data analyzes by cross tabulation, correlation analysis (Pearson r and Spearman's ρ) and a regression analysis confirmed that majority of the residents are only slightly satisfied, though satisfaction levels were generally higher for services provided and public facilities, compared to satisfaction with physical space within the housing unit and the social environment within the housing area.

Tan (2012) assessed housing satisfaction in medium and high-cost housing in the Greater Kuala Lumpur, Malaysia. A survey of households in four municipalities in the Greater Kuala Lumpur of Malaysia revealed that the degree of housing satisfaction depend on the types of homeownership externalities that households are expected to receive. Housing and socio-economic and demographic determinants are also found to be significant. Additionally, Aigbavboa and Thwala (2012) evaluate social and physical factors which influence housing satisfaction in four government Housing Subsidy locations in the Gauteng Province of South Africa. The descriptive statistical analysis of the data obtained

from the occupant surveyed revealed respondents satisfaction with the overall housing situation but protested certain aspects of the housing unit as well as their housing needs not being met.

Besides, Tan and Khong (2012) employed Structural Equation Modeling (SEM) to examine the link between homeownership motivation and housing satisfaction. Social capital investment and residential stability of homeownership appears to be significant determinants of housing satisfaction. Ibem, Opoko, Adeboye and Amole (2013) carried out a cross sectional survey of 452 household heads in nine public housing estates to measure the performance of residential buildings in public housing estates in urban areas of Ogun State, Nigeria. The descriptive statistical and factor analysis employed revealed that respondents were generally satisfied with the performance of the different components of the buildings. Satisfaction levels were largely higher with privacy and sizes of living and sleeping areas than the availability of water and electricity in the buildings. The most predominant factors that determined satisfaction and the performance of the buildings in meeting users' needs and expectations were type, location, aesthetic appearance and size of main activity areas.

A cross-sectional survey of 1219 middle-income community in Medan city in order to determine the criterion of housing satisfaction and the likely housing criterion necessary in the overall planning of a housing area revealed that housing location, housing design and public facilities are physical satisfaction criteria and security, social interaction and housing tenure are non-physical criteria (Dwira and Abdul, 2013). Likewise, Waziri, Yusof and Salleh (2013) investigated housing satisfaction level with private residential estate development in Abuja, Nigeria. Descriptive statistical analyzes of the data obtained from the Sixty six occupants of Prince and Princes Housing Estate indicates that residents express low satisfaction with their dwelling unit features and were neither satisfied nor dissatisfied with the overall housing.

In addition, Ibem and Aduwo (2013) assessed housing satisfaction in public housing in Ogun State, Nigeria. A questionnaire survey of 452 household-heads in housing estates constructed using the Turnkey, Public Private Partnerships (PPPs), Core Housing and Shell Stage strategies between 2003 and 2009 was conducted. Descriptive, factor and categorical regression analyses of the data obtained shows that respondents were generally dissatisfied with their housing conditions, satisfaction levels were however, higher with dwelling unit features than neighborhood facilities and services. The satisfaction levels were also higher among mortgage holders than renters and in the Core and Shell Stage houses where residents participated in the development of their houses than in the Turnkey and PPP houses, where completed houses were acquired. The three strongest predictors of housing satisfaction were adequacy of thermal and visual comfort and security; sizes of living and sleeping areas in the residences; and management of the housing estates. In the same vein, Waziri, Yusof and Rahim (2014) examined the effect of age grouping on overall housing satisfaction with respect to private housing development in Abuja, Nigeria. Descriptive statistical analysis and one-way analysis of variance conducted on the sixty-six occupants of Prince and Princes Housing Estate (the same case study estates as Waziri, Yusof and Salleh (2013) indicates that there was a statistically significant difference for total housing satisfaction between age groups. Satisfaction was statistically significantly higher in the 61 and above age group. The implication of which is the need to integrate specific demographic changes like age groups in residential housing development and policy plan Housing.

Subsequently, Kehinde, Ojo and Oginni (2015) assess residents' satisfaction in public housing estates in Osogbo, Nigeria. Analysis of the

Table 1 Socio Economic Background of the Respondents

Background Information	Frequency	Percentage (%)
Gender		
Male	51	63.75
Female	29	36.25
Age		
25-30	9	11.25
31-40	28	35.00
41-60	20	25.00
Above 60	23	28.75
Marital Status		
Single	27	33.75
Married	53	66.25
Occupation		
Civil servant	36	45.00
Retiree	9	11.25
Trader	14	17.50
Artisans	21	26.25
Monthly Income		
Less than N20,000	15	18.75
N20,000-50,000	14	17.50
N50,000-59,000	19	23.75
N60,000 and above	32	40.00
Academic Qualification		
OND	10	12.50
HND	23	28.75
BSc/B.Tech	24	30.00
MSc/M.Tech	17	21.25
Ph.D	6	7.50

data obtained from 312 household heads of six public housing estates reveals that the entire study areas were poorly equipped with infrastructure. The Mean Weighted Values of the housing estates also fell short of the overall mean value measurement of residents' satisfaction. Still, Yakubu, Natalia and Mallo (2017) assessed the level of satisfaction of households with the housing units in a Public Private Partnerships Housing Projects in Bauchi State, Nigeria. The descriptive statistical analysis revealed that all the respondents showed high satisfaction with the quality of the road network, water supply, electricity and drainage system within the estate. Nevertheless, the respondents expressed high dissatisfaction with unavailability of recreational facilities, absence of security outpost, waste disposal/management facilities, lack of health care facilities and general maintenance arrangements. In the same way, Njar (2017) considered the perception of the beneficiaries of housing units on the nature of the Loan and the drive carried out by Public-Private Partnership on housing provision in Cross River State, Nigeria. Snowball sampling technique was employed to sample 90 respondents. All the respondents were pleased and satisfied with the role played by PPP in housing provision. However, slight percentage of the respondents perceived the process to be characterized by anomalies such as favoritism.

MATERIALS AND METHODS

Description of the case study area

The Sunshine Gardens Housing Estate (the case study Estate) is located in Oba-Ile, a suburb of Akure, the Ondo State capital in Nigeria. It locates in 7° 16' North and 5° 15' East. The residents comprise of civil servants, traders, retiree and artisans. The Housing Estate occupies about five hectares of land with modern infrastructure as well as tarred roads, paved walkways, recreation center, electricity, effective water

facilities amongst others. The Sunshine Garden Estate, a project of the state government in partnership with a private property company (Locke Homes Limited) has 225 units of bungalows already completed in the Phase One, and occupied by beneficiaries. The Phase One is of three varieties, namely, Liberty, Diamond and Scarlet. The Liberty is a three bedroom bungalow with all the rooms en suite. The Diamond, which is a semi-detached three bedroom bungalow, has one master bedroom, while the Scarlet is a semi-detached two bedroom bungalow. The case study area was selected on the basis of the prospect for rational replication rather than generalization of outcome.

Methodology

The study target population is the beneficiary occupiers' of the case study estate. The sample frame for this study as confirmed from the Ondo state Housing and Property Development Corporation are the 225 beneficiary occupiers' of the case study estates. With the aid of Slovin formula Ninety- two beneficiaries were taken on sampling. Systematic random sampling technique was used in the selection of the 92 respondents out of the 225 beneficiaries. A self-administered questionnaire was the instrument of primary source of data collection employed. Data obtained from the respondents were analyzed with descriptive statistical method (frequency distribution table, relative important index, and weighted mean score). The Factors influencing the satisfaction and the level of satisfaction of the beneficiary occupiers of the estate were placed on a Five-point Likert scale ranging from 5) very satisfied, 4) satisfied, 3) neutral 2) dissatisfied, and 1) very dissatisfied and were rated by the beneficiaries. This was analyzed through factor analysis. Factor analysis is a collection of methods used to examine how underlying constructs influence the responses on a number of measured variables.

Table 2 Factors that Attracted Residents to the Estate

Factors	Relative Importance Index	Rank
Privacy in the residence	0.93	1 st
Standard security	0.92	2 nd
Location	0.83	3 rd
Interior and exterior features of the house	0.76	4 th
Price of the house	0.76	4 th
Mode of payment	0.76	4 th
Neighborhood Facilities	0.75	7 th

Table 3 KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy	.906
Approx. Chi-Square	3352.090
Bartlett's Test of Sphericity df	276
Sig.	.000

Table 4 Communalities

	Initial	Extraction
Sizes of cooking and storage spaces	1.000	.876
Sizes of bedrooms	1.000	.861
Number of bath and toilets in the residence	1.000	.885
Building materials used in the construction of Houses	1.000	.901
Natural lighting and ventilation in living and bedrooms	1.000	.888
Quietness of the neighborhood	1.000	.794
Management and maintenance	1.000	.886
Condition of the property	1.000	.925
Rate of waste disposal	1.000	.901
Water supply	1.000	.793
Constant electricity supply	1.000	.803
Security of life and property	1.000	.912
Public infrastructure and urban services	1.000	.910
Shopping facilities	1.000	.861
Accessibility to shopping Centre	1.000	.808
Proximity of home to place of work	1.000	.933
Proximity to nearby recreational facility	1.000	.908
Proximity of home to the market	1.000	.932
Accessibility to city Centre	1.000	.593
Accessibility to education institutions	1.000	.877
Proximity to place of worship	1.000	.893
Accessibility to public transport	1.000	.886
Accessibility to health institutions	1.000	.877
Medical/healthcare facilities	1.000	.855

Table 5 Determinant of satisfaction with Public Private Partnership Residential Estates

	Factor loading	Eigen value	% of Variance
Factor 1: Construction and Design		15.732	65.552
Sizes of cooking and storage spaces	.604		
Sizes of bedrooms	.822		
Number of bath and toilets in the residence	.848		
Building materials used in the construction of Houses	.912		
Natural lighting and ventilation in living and bedrooms	.794		
Factor 2: Neighborhood and Environmental Facilities		2.867	11.945
Privacy in the residence/Quietness of the neighborhood	.766		
Management and maintenance	.568		
Condition of the property	.675		
Rate of waste disposal	.689		
Water supply	.863		
Constant electricity supply	.673		
Security of life and property	.897		
Public infrastructure and urban services	.844		
Shopping facilities	.717		
Medical/healthcare facilities	.833		
Factor 3: Accessibility		2.158	8.992
Proximity of home to place of work	.867		

Proximity to nearby recreational facility	.810
Proximity of home to the market	.819
Accessibility to city Centre	.764
Accessibility to education institutions	.886
Proximity to place of worship	.908
Accessibility to public transport	.912
Accessibility to health institutions	.760

Total variance explained = 86.489

Table 6 Residents Level of Satisfaction with the Estate

Factors	Relative Satisfaction Index	Rank
Life and property Safety	0.92	1st
Privacy management	0.88	2nd
Dwelling space	0.87	3 rd
Overall housing Estate environment	0.78	4th
Estate facilities and amenities	0.75	5th
Property management	0.72	6th
Facilities management	0.66	7th

Source: Field survey, 2015

RESULTS AND DISCUSSION

Data were analyzed based on the responses gotten from the questionnaires distributed. Ninety two (92) questionnaires was administered, while 80 (87%) was retrieved due to unavailability of the respondents at the period of collection and subsequent attempts. Analysis was made on the socio economic background of the respondents, factors that attracted residents to the estate and factors that influenced residents' satisfaction.

From Table 1, 63.8% of the respondents were male while 36.3% were female. This depicts a mix of both gender which may be significant in considering residential satisfaction. The age range as can be seen from the table also cut across different age strata. This is very vital in determining residential satisfaction. According to Mohit, Ibrahim and Rashid (2010), the degree of housing satisfaction of different age groups may differ from each other. Furthermore, majority of the respondents are married (66.3%) while the remaining 33.8% are not. This as well is a relevant factor which of course could be accountable for variation in the level of their satisfaction. Therefore, with the respondent's level of income, qualifications and the said socio-economic demographics, all the beneficiaries of the estate cut across the different socio-economic class and are well represented in the study. It has been confirmed by Ibem, and Aduwo (2013) that differences in socioeconomic and demographic characteristics of residents have significant influence on their level of satisfaction with their housing conditions and residential environment.

Table 2 analyses the various factor that mostly attracted the beneficiaries to the sunshine Garden Estate. 'Privacy in the dwelling' was ranked highest with a relative important index (RII) of 0.93. This was followed by 'Standard security' in the estate with a RII of 0.92. Other factors being 'location', 'Interior and Exterior features of the house', 'Price of the house', 'Mode of payment' and 'Neighborhood facilities' which is the least important as evidenced with a RII of 0.75.

From Table 3 the KMO value of 0.906 is greater than 0.5. This indicates that the factors are a very good measure of housing satisfaction and the result is significant as well as an adequate factor analysis, therefore the analysis can continue. Also, from the Table, the Bartlett's test of sphericity is significant at 0.05 ($p < .005$). This is an indication of the strength of the correlation among factors that influenced beneficiaries' satisfaction. Therefore, exclusion of any other associated factors is unnecessary.

Table 4, presented the level of variance in the variables that was accounted for by the extracted factors. The extraction method employed

was principal component analysis. About 93.3% of the variance in 'proximity of home to place of work' is accounted for while 93.2% of the variance in 'proximity of home to the market' is accounted for.

Table 5 shows the eigenvalues of all the factors extractable from the analysis including the percentage of variance attributable to each factor and the cumulative variance of the factor. The first factor explains 65.552% of the variance, the second 11.945% and the third 8.992%. The eigenvalue of the remaining 21 factors are less than 1 and are not significant. Consequently only three factors could be taken. 'Sizes of cooking and storage spaces', 'Sizes of bedrooms', 'Number of bath and toilets in the residence', 'Building materials used in the construction of Houses' and 'Natural lighting and ventilation in living and bedrooms' are considerably loaded on Factor (Component) 1 which are renamed as "Construction and Design factors" while 'Privacy in the residence/Quietness of the neighborhood', 'Management and maintenance', 'Condition of the property', 'Rate of waste disposal', 'Water supply', 'Constant electricity supply', 'Security of life and property', 'Public infrastructure and urban services', 'Shopping facilities' and 'Medical/healthcare facilities' are well loaded on Factor 2 and are categorized as "Neighborhood and Environmental Facilities". All the remaining variables are substantially loaded on Factor 3 and are categorized as "Accessibility factors". This suggests that construction and design; neighborhood and environmental facilities as well as accessibility remain the major factors to take cognizance of as affecting beneficiaries' satisfaction in the Case Study Estate.

Table 6 shows the response of the residents on the satisfaction level toward the estate. The satisfaction derived from life and property safety within the residential estate was ranked highest with a RSI of 0.92. Privacy in dwelling was judged second most satisfactory within the neighborhood of the estate and has a RSI of 0.88. And the last two ranked were property management and facilities management with RSI of 0.72 and 0.66 respectively. This indicates generally, that, the residents maintain average satisfaction level. The finding corroborates Kellekci and Berkozd (2006) that the most significant factors increasing level of satisfaction are accessibility and environmental security of the housing in terms of life and property safety.

CONCLUSION

This study assesses beneficiaries' satisfaction with the Public Private Partnership Residential Estates with the help of a case study conducted in sunshine garden estate in Oba-Ile area of Ondo State. The study

shows that factor such as construction and design, neighborhood and environmental facilities and accessibility has been a crucial determinant of housing satisfaction in the study area. Also privacy in the residence and quietness of the neighborhood had the highest influence on beneficiaries' interest in the estate. These findings are expected to provide housing practitioners and policy makers with a knowledge base for understanding the determinant of beneficiaries' satisfaction in typical public private partnership residential estates in case of future development.

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